

REMARKS

This is intended as a full and complete response to the Office Action dated September 20, 2006, having a shortened statutory period for response set to expire on December 20, 2006. Claims 1-17 have been examined. The Examiner rejected claims 6-14 under 35 U.S.C. § 112. The Examiner rejected claims 1-14, 16, and 17 under 35 U.S.C. § 103(a) as being obvious over Vohra (U.S. 6,744,986) in view of Cearns (U.S. 5,943,149). The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as being obvious over Vohra, in view of Cearns, as applied to claim 1 as discussed above, and further in view of Applicants' admitted prior art at Figure 3.

Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 6 – 14 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In response, Applicants have amended claims 6-14 to address the Examiner's concern. Therefore, Applicants respectfully request the § 112 rejection of the claims be removed.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claims 1, 16, and 17 as being obvious over Vohra in view of Cearns. Applicants respectfully traverse the rejection of claim 16. Additionally, Applicants have amended claims 1 and 17.

As amended, claim 1 includes the limitations of a bandpass filter comprising a transmission port and a reflection port, wherein the reflection port is configured to be connectable to a further bandpass filter in order to accommodate a plurality of additional channels. The combination of Vohra and Cearns fails to disclose this limitation. Rather, as admitted by the Examiner, Vohra does not expressly disclose the details regarding a multiplexer section and a demultiplexer section. Further, Cearns merely discloses a plurality of bandpass filters for demultiplexing a multiplexed optical signal. Specifically, the bandpass filter referred to by the Examiner as the third bypass filter (which is shown in Figure 5 of Cearns as the first filter in the series of filters shown on the left) is optically connected to a port from the bandpass

filter “20.” This bandpass filter includes a transmission port connected to a cascaded series of channel filter assemblies and an output channel port. The output port is configured to transmit a single channel as shown in Figure 5. As such, Cearns does not teach or suggest a reflection port that is configured to be connectable to a further bandpass filter in order to accommodate a plurality of additional channels, as recited in claim 1. Therefore, Cearns fails to cure the deficiencies of Vohra.

As amended, claim 17 includes the limitation of an optical switching unit optically coupled between the first and second cascaded series of channel filter assemblies, and between the third and fourth cascaded series of channel filter assemblies. The combination of Vohra and Cearns fails to disclose these limitations. As mentioned above, Vohra does not expressly disclose the details regarding a multiplexer section and a demultiplexer section. Further, Cearns merely discloses a demultiplexer for demultiplexing a multiplexed optical signal. There is no mention in Cearns of an optically switching unit residing between the cascaded series of channel filter assemblies. As such, the combination of Vohra and Cearns fails to disclose a switching unit between a plurality of cascaded series of channel filter assemblies, as recited in claim 17.

Claim 16 includes the limitation of a multiplexer configured to receive a demultiplexed signal from the cascaded series of channel filter assemblies of the demultiplexer and then multiplex the signal by utilizing a plurality of bandpass filters and a plurality of cascaded series of channel filter assemblies, such that the channels are combined into a composite optical output signal. The combination of Vohra and Cearns fails to disclose these limitations. Rather, as previously stated, Vohra does not expressly disclose the details of a multiplexer section. Additionally, Cearns merely discloses demultiplexing a multiplexed optical signal by utilizing a plurality of bandpass filters and a plurality of cascading bandpass filter arrangements (see Cearns, Figures 4-6). In fact, the problem solved by Cearns, as described in relation to Figures 2a and 2b of Cearns, is to provide a demultiplexer that includes circuitry which eliminates the loss of a channel. Moreover, contrary to the Examiner’s assertion on page 5 of the Office Action, Cearns does not teach or suggest a plurality of bandpass filters and a plurality of cascaded series of channel filter assemblies that are configured to receive a demultiplexed signal from a cascaded series of channel filter assemblies of a demultiplexer and then combine the signals into a composite optical output signal, as stated in claim 16. Rather, Cearns merely

discloses a 3-port dichroic filter "300" that can filter light in both directions and a demultiplexer that can be configured in a variety of ways to demultiplex a multiplexed signal. Therefore, Cearns fails to cure the deficiencies of Vohra.

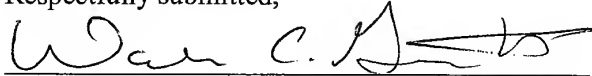
As the foregoing illustrates, the combination of Vohra and Cearns fails to teach or suggest all the limitations of claims 1, 16, and 17. This failure precludes the combination of Vohra and Cearns from rendering claims 1, 16, and 17 obvious. Applicants therefore submit that 1, 16, and 17 are in condition for allowance and respectfully request withdrawal of the § 103(a) rejection. Additionally, since claims 2-14 depend from claim 1 and new claims 18-19 depend from claim 17, these claims are allowable for at least the same reasons as claims 1 and 17.

The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as being obvious over Vohra, in view of Cearns, as applied to claim 1 as discussed above, and further in view of Applicants' admitted prior art at Figure 3. Applicants respectfully traverse the rejection. Claim 15 depends from claim 1. As set forth above, the combination of Vohra and Cearns fails to teach or suggest all the limitations in claim 1. Further, Applicants' admitted prior art at Figure 3 fails to cure the deficiencies of the combination of Vohra and Cearns. This failure precludes the combination of Vohra, Cearns, and Applicants' admitted prior art at Figure 3 from rendering claim 15 obvious. Applicants therefore submit that claim 15 is in condition for allowance and respectfully request withdrawal of the § 103(a) rejection.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the case is in condition for allowance. If the Examiner has any questions, please contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,



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